

CLAIMS

What is claimed is:

1. A container transport system for transport of an article, in particular a baggage item, comprising:
a container for receiving an article, said container defining a longitudinal axis and being made of flame-resistant, wear-resistant and translucent plastic material which is stable in shape, said container having an underside formed with touch surfaces extending in the transport direction; and
a conveyor for advancing the container in a transport direction between at least one receiving site and at least one discharge site of the conveyor, said conveyor having a guiding and/or driving engagement assembly for cooperation with the touch surfaces of the container.
2. The transport system of claim 1, wherein the touch surfaces are formed by confronting sidewalls of a groove-shaped passageway provided in the underside of the container as mirror images of one another on both sides of the longitudinal axis for engagement of at least partial areas thereof by the engagement assembly.

3. The transport system of claim 2, wherein the sidewalls of the passageway are outwardly curved mirror-symmetrically at a radius which corresponds to a curve radius of the conveyor, thereby defining a greatest distance between the sidewalls in mid-section of the container, wherein the engagement assembly of the conveyor bears against at least one of the sidewalls in a force-locking or form-fitting manner in a curved section, crossing or switch zone of the conveyor.
4. The transport system of claim 2, wherein the sidewalls of the passageway are inwardly curved mirror-symmetrically at a radius which corresponds to a curve radius of the conveyor, thereby defining a smallest distance between the sidewalls in mid-section of the container, wherein the engagement assembly of the conveyor bears against at least one of the sidewalls in a force-locking or form-fitting manner in a curved section, crossing or switch zone of the conveyor.
5. The transport system of claim 2, wherein the sidewalls of the passageway have a configuration to conform to a width of the engagement assembly in leading and trailing zones of the passageway, as viewed in transport direction, wherein the sidewalls extend steadily outwards to form a funnel-shaped configuration of the passageway in the leading and trailing zones.

6. The transport system of claim 2, wherein the sidewalls of the passageway extend perpendicular to the underside of the container.
7. The transport system of claim 2, wherein the sidewalls of the passageway are positioned as mirror images in inclined relationship to form a configuration of the passageway in downwardly expanding direction.
8. The transport system of claim 1, wherein the container has a topside intended for receiving the article and constructed in symmetry to the longitudinal axis in the form of a trough which is curved downwards.
9. The transport system of claim 2, wherein each of the touch surfaces of the passageway is provided with at least one step extending in longitudinal direction of the passageway adjacent to a base of the passageway, thereby defining a base-distal sidewall which is curved at a radius in correspondence to a curve radius of the transport path and extending in parallel relationship to the transport direction, and a base-proximal sidewall, wherein the base-proximal sidewall of one of the touch surfaces and the base-proximal sidewall of the other one of the touch surfaces are spaced from one another at a distance which is suited to a width of the engagement assembly.

10. The transport system of claim 2, wherein the engagement assembly includes cantilevered beveled or cylindrical rollers engaging the passageway and disposed behind one another in the transport direction at least in one row, with each of the rollers bearing at least against one of the sidewalls of the passageway.
11. The transport system of claim 10, wherein the rollers are arranged along a circular path, when the rollers engage a curved section of the conveyor, wherein the circular path is defined by a radius center point which is located on an axis which extends through a center point of the curved section and a radius center point of one of the sidewalls of the passageway.
12. The transport system of claim 11, wherein the engagement assembly includes two rows of bevel wheels in a curved section of the conveyor, which are so disposed that prolongations of their cone axes of the bevel wheels of one row and prolongations of their conical flanks intersect in one point which is located on a curve center point axis on which also a point of intersection of the bevel wheels of the other row is located.

13. The transport system of claim 1, wherein the engagement assembly includes two rows of rollers in a curved section of the conveyor, each of the rows of rollers defined by a surface line extending on a circular path in parallel relationship to at least one of the sidewalls, and further comprising a driving belt wrapped around at least one of the rows of rollers and resting against one of the sidewalls, while the other one of the rows of rollers is in contacting relationship, at least along areas thereof, with the other one of the sidewalls.
14. The transport system of claim 1, wherein the container has a main body having at least one closed hollow space.
15. The transport system of claim 14, wherein the hollow space of the main body is foamed out.
16. The transport system of claim 14, wherein the hollow space is filled with a fire extinguishing substance.
17. The transport system of claim 14, wherein the main body has outer edges for arrangement of metal elements for interaction with inductive proximity sensors installed along a transport path.

18. The transport system of claim 14, and further comprising plural transponders placed in the main body outside a visual zone of an X-ray screening system for identification purposes.
19. The transport system of claim 18, wherein the transponders are masked by a metal cover for protection from irradiation by X-rays.